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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,582	12/05/2001	Roy F. Brabson	RSW920010222US1	3561
7590 01/03/2006			EXAMINER	
Jerry W. Herndon IBM Corporation T81/503 PO Box 12195 Research Triangle Park, NC 27709			PAN, JOSEPH T	
			ART UNIT	PAPER NUMBER
			2135	

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/007,582

Applicant(s)

BRABSON ET AL.

Examiner

Joseph Pan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. The applicant's response filed on October 21, 2005 has been received. Claims 1-3, 5, 7-10, 12-13 have been amended. New Claims 14-20 have been added. Claims 1-20 are pending.

### **Response to Arguments**

2. Applicant's arguments filed on October 21, 2005 have been fully considered but they are not persuasive.

Applicant argues that:

"These three claims have been amended to clarify that the security offload component is in the operating system kernel"

"Support for providing the security offload component as part of the operating system kernel is provided, for example, at page 11, lines 13-19 of the specification"

Examiner maintains that:

The application does not disclose that the security offload component is in the operating system kernel. Examiner checks page 11 of the application, and finds no disclosure about providing a security offload component in the operating system kernel.

Applicant argues that:

"Arrow's description of the encryption-decryption unit 730 appears to be limited to the passage at col. 11, lines 43-47, which does not include any details with respect to what the encryption-decryption unit 730 uses to provide secure communications or how data is sent from the encryption-decryption unit 730"

Examiner maintains:

Arrow et al. do include details about the encryption and decryption device:

“Intelligent communication devices such as encryption and decryption devices described above typically incorporate processors. Processors execute sets of instructions, such as those comprising an operating system program, in order to perform their specified functions. The operating system of an encryption or decryption device, for example, may include instructions detailing the method of encryption or decryption to be applied, identifying how to differentiate between streams of data that are and are not to be encrypted or decrypted, etc.” (see column 2, lines 34-43 of Arrow et al.).

### ***Claim Rejections - 35 USC § 112***

3. Amended independent claims 1, 12-13 are rejected under 35 U.S.C. 112 first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original disclosure fails to specify providing the security offload component **in the operating system kernel**. The new limitation for the security offload component to be **“in the operating system kernel”** in the amended claims 1, 12-13 are considered to be new matter.

Claims 2-11, 14-17, and 18-20 are dependent claims on claims 1, 12-13, therefore, Claims 2-11, 14-17, and 18-20 are also rejected under 35 U.S.C. 112 first paragraph.

### ***Claim Rejections - 35 USC § 102***

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 8-13, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Arrow et al. (U.S. Patent No. 6,175,917).

Referring to claim 1:

Arrow et al. teach:

A method of improving security processing in a computer network, comprising steps of:

Providing a security offload component in an operating system which performs security processing (see figure 7, elements 730, 116 of Arrow et al.);

Providing a control function to an operating system for directing operation of security processing by the security offload component (see column 10, lines 53-56 of Arrow et al.);

Providing an application program (see e.g. figure 1, element 140 of Arrow et al.);

During execution of the application program, directing the security offload component to secure at least one communication of the executing application program (see column 8, lines 4-11 of Arrow et al.).

Referring to claim 8:

Arrow et al. teach the claimed subject matter: providing a security offload component which performs security processing, and a control function. Arrow et al.

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further disclose providing client and/or server certificates to the security offload component in securing the communications (see column 9, lines 18-19 of Arrow et al.).

Referring to claim 9:

Arrow et al. teach the claimed subject matter: providing a security offload component which performs security processing, and a control function. Arrow et al. further disclose the security key information used in the offload security component (see column 7, lines 59-61 of Arrow et al.).

Referring to claim 10:

Arrow et al. teach the claimed subject matter: providing a security offload component which performs security processing, and a control function. Arrow et al. further disclose the cipher suite information used in the offload security component (see column 7, lines 46-52 of Arrow et al.).

Referring to claims 11, 17:

Arrow et al. teach the claimed subject matter: providing a security offload component which performs security processing, and a control function. Arrow et al. further disclose that the outbound data packet is sent directly to its destination from the security offload component (see column 8, lines 18-19 of Arrow et al.).

Referring to claim 12:

Arrow et al. teach:

A system of improving security processing in a computer network, comprising:

A security offload component in an operating system which performs security processing (see figure 7, elements 730, 116 of Arrow et al.);

At least one control function to an operating system for directing operations of security processing by the security offload component (see column 10, lines 53-56 of Arrow et al.);

Means for executing the at least one provided control function (see column 2, lines 34-38 of Arrow et al.);

Means for directing the security offload component to secure at least one communication of an application (see column 8, lines 4-11 of Arrow et al.).

Referring to claim 13:

This claim has limitations which are similar to those of claim 12, thus it is rejected with the same rationale applied against claim 12 above.

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-5, 14-15, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arrow et al. (U.S. Patent No. 6,175,917), further in view of Bulfer et al. (U.S. Patent No. 5,392,357).

Referring to claims 2-3, 14-15, 18-19:

i. Arrow et al. teach the claimed subject matter: providing a security offload component which performs security processing, and a control function (see claim 1 above). However, Arrow et al. do not explicitly mention the mechanism to start or stop securing the communication.

ii. Bulfer et al. disclose a system wherein the secure communication between two parties can be started by providing the encryptor type (see column 12, lines 61-63 of Bulfer et al.), and the secure communication can be changed to a non-secure communication via a clear button (see column 8, lines 44-46 of Bulfer et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Bulfer et al. into the system

of Arrow et al. to provide the functionalities to start and stop securing the communication in the security offload component.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Bulfer et al. into the system of Arrow et al. to provide start and stop functionalities in the security offload component, so that unauthorized persons cannot intercept and access voice, data, facsimile, video or other information not intended for them (see column 1, lines 12-14 of Bulfer et al.).

Referring to claims 4-5:

Arrow et al. and Bulfer et al. teach the claimed subject matter: providing a security offload component which performs security processing, and a control function. Arrow et al. further disclose the information needed by the offload security component: authentication information; cipher suite information; and the security key information (see column 7, lines 46-52, and lines 59-61 of Arrow et al.).

8. Claims 6-7, 16, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arrow et al. (U.S. Patent No. 6,175,917), further in view of Angle et al. (U.S. Patent No. 5,541,920).

Referring to claims 6-7, 16, 20:

i. Arrow et al. teach the claimed subject matter: providing a security offload component which performs security processing, and a control (see claim 1 above). However, Arrow et al. do not specifically mention modifying the outbound data in preparation for use by the offload security component. Arrow et al. also do not specifically mention to reserve space in the outbound data for the security headers and trailers.

ii. Angle et al. disclose a system wherein the data packet is modified before being forwarded to its destination (see column 1, lines 33-36 of Angle et al.); and the reserved space in the data packet is used for modification (see column 4, lines 53-58 of Angle et al.).



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iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Angle et al. into the system of Arrow et al. to modify the packet in preparation for the use by the security offload component, and use the reserved space in the outbound data for the security headers and trailers.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Angle et al. into the system of Arrow et al., because it is desirable to implement a packet streaming modification technique for data packets which include fields that may need to be modified base on the packet contents following the fields to be modified (see column 2, lines 11-15 of Angle et al.).

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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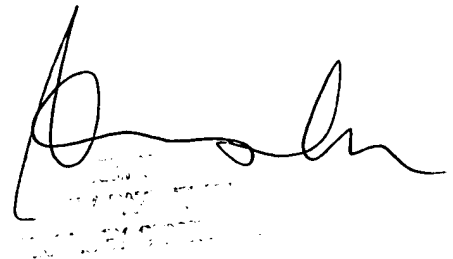
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Joseph Pan

December 22, 2005

A handwritten signature in black ink, appearing to read 'Joseph Pan', with some faint, illegible text underneath it.